Abstract

A turbocharger in which a drive shaft supports at one end a turbine driven by exhaust gases from an internal combustion engine. The end of the drive shaft remote from the turbine supports a drive connection which is coupled to an output shaft of the driving engine. The shaft is supported in a housing by a first bearing adjacent the turbine and a second bearing adjacent the drive coupling. The first and second bearings each define an inner bearing surface relative to which the shaft rotates and an outer bearing surface which rotates relative to the housing. The first and second bearings are mechanically coupled together such that they rotate relative to the housing at the same speed. Coupling the two bearings together ensures that directional forces applied to the bearing at the end adjacent the drive connection which might cause that bearing to seize are resisted by torque delivered from the bearing at the other end of the shaft.

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